

[NAME OF DOCUMENT]      ABSTRACT

[SUMMARY]

[OBJECT]      To form a uniform silicon oxide film of a high quality on the surface of a substrate at a low substrate-temperature of 200-500°C, and to provide a semiconductor device using the silicon oxide film.

[ORGANIZATION]      A silicon oxide film relative to the device is characterized in that Kr is contained in it. When performing an oxidation using a mixture gas containing Kr gas, it is characterized in that the oxygen partial pressure in the mixture gas is 2 to 4%, and the pressure in said process chamber is 800 mTorr to 1.2 Torr.

[SELECTED DRAWING]      Fig. 6